HOW TO ORGANIZE THE HEADQUARTERS FOR INFORMATION OPERATIONS AT THE BRIGADE AND DIVISION

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As the Army transforms to a modular force, the issue of information operations is a topic for leaders at all levels. A particular issue is how to organize the unit staff to plan, prepare, and execute information operations. Currently, units at the brigade and division level are trying various methods of incorporating staff officers and noncommissioned officers into the planning process for information operations. Some units are approaching the problem of integrating information operations into operations with the use of an Effects Coordination Cell. Other units have Information Operations Working Group and a Fires Cell. With this in mind, what are marked benefits to the Effects Coordination Cell methodology as opposed to the separate Information Operations Working Group and Fires Cell? The challenge for this study is to determine which is the more efficient method, determining what is gained and if the process should be standard across the Army. Using Army doctrine and military journals, the study of information operations planning and the implications were limited to brigade and division headquarters. Considerations of available resources, the commander's intent and numerous other factors lead to the conclusion that the Effects Coordination Cell is the best way for these headquarters to organize.

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The opinions and conclusions expressed herein are those of the student author and do not necessarily represent the views of the U.S. Army Command and General Staff College or any other governmental agency. (References to this study should include the foregoing statement.)

ABSTRACT

HOW TO ORGANIZE THE HEADQUARTERS FOR INFORMATION OPERATIONS AT THE DIVISION AND BRIGADE, by MAJ Mark E. Brock, 81 pages.

As the Army transforms to a modular force, the issue of information operations is a topic for leaders at all levels. A particular issue is how to organize the unit staff to plan, prepare, and execute information operations. Currently, units at the brigade and division level are trying various methods of incorporating staff officers and noncommissioned officers into the planning process for information operations. Some units are approaching the problem of integrating information operations into operations with the use of an Effects Coordination Cell. Other units have Information Operations Working Group and a Fires Cell. With this in mind, what are marked benefits to the Effects Coordination Cell methodology as opposed to the separate Information Operations Working Group and Fires Cell? The challenge for this study is to determine which is the more efficient method, determining what is gained and if the process should be standard across the Army. Using Army doctrine and military journals, the study of information operations planning and the implications were limited to brigade and division headquarters. Considerations of available resources, the commander's intent and numerous other factors lead to the conclusion that the Effects Coordination Cell is the best way for these headquarters to organize.

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ACRONYMS

AGM	Attack Guidance Matrix
AO	Area of Operations
ATO	Air Tasking Order
BCT	Brigade Combat Team
BOS	Battlefield Operating Systems
C2	Command and Control
COG	Center of Gravity
CSS	Combat Service Support
D3A	Decide, Detect, Deliver, Assess
DOD	Department of Defense
DP	Decisive Point
EBO	Effects Based Operations
ECC	Effects Coordination Cell
ETO	Effects Tasking Order
FA	Functional Area
FC	Fires Cell
FCS	Future Combat System
FEC	Fires and Effects Cell
FECC	Fires and Effects Coordination Cell
FM	Field Manual
GWOT	Global War on Terrorism
IO	Information Operations
IOWG	Information Operations Working Group

JTF	Joint Task Force
M/C/S	Mobility, Countermobility, and Survivability
MOE	Measure of Effectiveness
MOS	Military Occupational Skill
MTP	Mission Training Plans
OEF	Operation Enduring Freedom
OIF	Operation Iraqi Freedom
POW	Principles of War
SBCT	Stryker Brigade Combat Team
SOP	Standard Operating Procedure
SOSO	Stability Operations and Support Operations
UEx	Unit of Execution, x
UEy	Unit of Execution, y

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CHAPTER 1

INTRODUCTION

Operations in Iraq are demonstrating the need for effective integration of information operations (IO) into the unit plan. Integrating IO into planning and execution poses several challenges to units. Soldiers in brigade and division headquarters have limited time and resources to accomplish the numerous tasks assigned. For IO and integration into the staff process, most units assign IO functions to staff officers as an additional duty. If IO are vital to mission accomplishment, then how should IO fit into the unit planning process? The current Army doctrine does not adequately address how units should plan for and conduct IO. The Army doctrine does not account for the realities of IO in today's contemporary operating environment.

So, why are units conducting IO? The easy answer is to say it is required. However, it is something to do for reasons other than, "higher headquarters said so." The Army is placing people into positions to support IO and units are conducting IO planning, preparation, and execution. Units are identifying people to fill Information Operation Working Groups (IOWGs), Effects Coordination Cells (ECCs), and Fires Cells (FCs). These staff positions may be formal or informal, but there is a need to support IO staff functions at the division and brigade level.

IO have gained more attention in the recent years. The military has learned that defeating an enemy needs to address areas other than pitting equipment against equipment. Unlike most traditional warfare at the tactical and organizational level, IO does not provide instant feedback. In a traditional fight, a commander can target a single

tank for destruction. The commander can order a particular weapon system to engage the tank and see for himself if the attack achieved his desired end state. The staff can accomplish this process in as little as a few seconds. IO do not provide the commander that same type of instant feedback.

A commander may make an IO decision and never see any results of his action. This lack of definitive results has made it difficult for leaders and planners to agree on how best to organize IO within their units. In the article by Grohoski, Seybert, and Romanych, they state, “Developing MOEs (Measures of Effectiveness) to assess the effectiveness of the information operation is a difficult task” (2003, 15). This difficulty in assessing the effectiveness of information warfare contributes the disagreement on how to conduct IO.

IO cover a wide range of areas. In her article, Chief Warrant Officer Three (Ret) Lori Sieting identifies seven areas for intelligences to support IO. These areas are operations security, psychological operations, military deception, electronic attack, physical destruction, civil-military operations and public affairs (Sieting 2003, 56). Clearly, this is a wide range of topics for the maneuver commander to consider in his planning process.

Today’s IO started with Desert Storm (Wright 2001, 30). Prior to Desert Storm many of the actions conducted by military units encompassed those identified by Seiting. Desert Storm demonstrated the need to incorporate maneuver, command, and control with operational security, psychological operations, and other IO assets (Wright 2001, 30).

Today, leaders are seeing the benefits of incorporating an information plan into their maneuver plan to increase their chance of success. Leaders do not just focus on the destruction of the enemy equipment but influencing his decisions and actions. With IO, leaders are looking for ways to affect his communications network, intelligence assets, media, public support, and a myriad of other targets.

In addition to the Army, other branches of the military are in the process of integrating information into their operations. In *ForceNet Turning Information into Power*, the authors discuss the dramatic effects of superior IO on modern warfare. According to the article, because of effect IO conducted by the Navy, "80% of the targets destroyed by sea-based aircraft were identified to the pilots after they left the carrier's deck (Mayo and Nathman 2003, 42). If the Navy can integrate effective IO into fast-paced carrier operations, this should be just as feasible for Army commanders. This example illustrates how data collection systems and the ability to share data rapidly influence the battlefield. Taking this type of conventional targeting operation into the realm of information operations demonstrates that commanders are able to take new information and apply to operations underway.

In 2001, the United States entered a war on terrorism that may be the real test for IO. Since the beginning of the Global War on Terrorism (GWOT), United States Army commanders and their staffs have attempted to conduct IO staff functions more efficiently. Operations in Afghanistan and Iraq reinforced the need for IO. Once the combat operations ended, "Rather than destroying tanks . . . we refocused on 'winning the hearts and minds' of the population by providing for a safe and secure environment" (Reyes 2004, 11). The units conducted the winning of the hearts and minds with the

assistance of IO (Reyes 2004, 11). However, the current force structure does not provide the needed resources for adequately addressing IO at the brigade and division staff.

Currently, units at the brigade and division levels are trying various methods of incorporating staff officers and noncommissioned officers into the planning process. The result is often a trade-off in expectations for those Soldiers. These trade-offs result because work requirements force some Soldiers to perform double duty by performing their primary job and at the same time perform staff work in some capacity to support IO. Units resort to designating Soldiers within the Intelligence or Fire Support section to perform IO function or attend an IO related meeting. The Soldier selected for the task may or may not have any formal training to accomplish the duty. The lack of training or emphasis on the IO duty may cause the selected individual to place little effort on his additional duty.

Some units are approaching the problem of integrating IO into operations with the use of an Effects Coordination Cell. Other units have Information Operations Working Group and a Fires Cell. With this in mind, what are marked benefits to the Effects Coordination Cell methodology as opposed to the separate Information Operations Working Group and Fires Cell? If a unit approaches the IO challenge with an Effects Coordination Cell, should this become an Army-wide process? For units that have taken the approach to have Information Operations Working Groups, what is gained? Does this group outweigh its inconvenience as another meeting in a time-constrained environment? A third sub question generated by the current structure involves the Fires Cell. That question is what are the persuasive arguments in favor of a separate Fires Cell and how can they be mitigated (Prioritized List of MMAS/SAMs IO Topics 2004)? The area to

study for IO is the two different methods for a staff to organize. The Army should incorporate the method that is more efficient. The challenge is to determine which method is efficient.

If Soldiers are splitting their efforts between their primary duties and IO, does this increase the risk to mission accomplishment? Within a command post, the staff usually has a section to perform their individual work and track the battle. This area will usually have a desk, map, radio, charts, and other items as needed. For most command posts, there is not a separate area devoted to IO. The Soldiers working the IO piece may have to borrow resources. As IO have increased in importance, commanders are trying to find a place to put them within the command post. The fire support element is becoming a place to put IO and the associated assets.

Normally, the fire support element organizes around the field artillery staff. The traditional role of the fire support coordinator and his staff is to integrate all fires into the maneuver plan. The field artillery staff is accustomed to integrating engineers, Air Force, naval gunfire, and other assets into plans. For some people, it is only natural that the field artillery takes a lead role in IO. As the field artillery community has become responsible for IO at the brigade and division levels, this is forcing people to rethink how fires and effects are coordinated.

Traditional artillery is a precise operation that produces measurable effects. In contrast, IO produce effects that are often difficult or impossible to measure. In the traditional use, effects of artillery and other fire support are easy to see and simple to measure. Often, effects and the ability to measure results are near instantaneous. With IO, the effects are more difficult to measure. Units may plan and execute IO over several

days or possible weeks. The desired effects of those operations may take just as long to materialize. This wide window to measure effects is a challenge for a staff with a decision-making process of decide, detect, deliver, and assess mentality measured in minutes or hours. To conduct effective IO, the staff must adjust this decision process.

Another reason for finding an appropriate solution to the IO integration challenge is transformation. As the Army transforms to a more modern force, it will rely more on IO to win battles. The transformed Army will replace brigades, divisions, and corps with new units. The new structure will replace the brigade with the brigade combat team. The Unit of Execution x (UEx) and the Unit of Execution y (UEy) will not become the new name for divisions, or corps, but will incorporate new organizations and functions. As the Army transforms, the staff structure at brigade and division will change.

Successful integration of IO at the brigade and division levels can make the goal of a lighter force possible. The Army is developing a lighter force that is capable of deploying more rapidly than conventional mechanized forces. Before the fielding of this new family of vehicles, the Army must develop a feasible process that incorporates IO. In today's environment, the Army is adapting a legacy force to use IO. In looking to the future, the Army is planning to incorporate information into brigade and division operations. The Stryker brigade combat teams (SBCTs) are adjusting for the use of an information section. The Army is fielding the Stryker brigades with lighter vehicles that do not have the armor protection of a conventional mechanized force. To offset this lighter armor, the new Stryker brigade uses improved situational awareness and ability to conduct effective IO. The Stryker brigades have Functional Area (FA) 30, Information Operations, positions in the structure. The enhanced separate brigades in the National

Guard are also incorporating FA 30 positions into their structure. The follow-on to the current Army force is the Future Combat System (FCS). The FCS will be even more reliant on IO than the Stryker brigade will rely.

Current and future training also requires a correct solution for properly integrating IO. The Field Artillery School is starting a Joint Fires and Effects Course (Gourley 2005, 35). The course will assist leaders by training them to integrating more assets into the commander's plan. The training conducted by the Army should meet the requirements of the deployed force. If the Army is to properly train and integrate IO, the method used must be uniform throughout the Army.

As the Army struggle to integrate IO into unit operations is examined, this thesis must address two assumptions. The first assumption is IO are required. For the purpose of this study, it will be assumed that IO are a valid requirement the Army must conduct. Based on the amount of information available on the subject, the number of people involved in the process, and the publishing of joint information operation doctrine, this should not be a question to address further. The second assumption is the products developed by either method are the same and each method is just as effective. One can assume regardless of the method (IOWG and Fires Cell vs. ECC), the products developed and the results would be the same. Due to the difficulty in determining effects of IO, this assumption may never be proven either true or false. Because each situation is unique, it is doubtful that a test to determine which method, if either, produces better products.

CHAPTER 2

LITERATURE REVIEW

There are many sources of material for IO. Within the Department of Defense (DOD), the Chairman of the Joint Chiefs of Staff and the Department of the Army publishes manuals, articles, regulations, and others for IO. The Center for Army Lessons Learned at Fort Leavenworth, Kansas, also has numerous documents related to IO and Army operations. Also available are several newsletter that address recent operations in Iraq, Afghanistan, and Kosovo. Other documents available on-line are command briefings on Effects Coordination Cells.

Another source involves unofficial documents. There are journals and reviews published outside of the military. These unofficial articles are readily for anyone to read. These provide the views of people closely associated with a particular topic and may provide more up-to-date information on current operations. Soldiers that recently completed operations in Iraq or Afghanistan wrote most of these articles.

Access to these documents should be easy. Many of these documents are available on the Internet or available at the Fort Leavenworth Combined Arms Research Library. The United States Field Artillery School at Fort Sill is developing a Joint Fires and Effects Course for implementation in fiscal year (Gourley 2005). This course should provide up-to-date information on IO integration techniques. There are also documents available from other branches of the military that may provide assistance in answering the questions. Documents from outside the Army may provide a new perspective on the problem and lead to a more suitable solution.

For someone concerned with IO at the brigade and division levels, recently published documents are providing the most useful information. The articles published in journals about recent operations in Kosovo, Afghanistan, and Iraq provides lessons learned in real-world operations. Most Army and joint publications have not adapted as quickly. The joint publications provide a basic framework for IO within an organization. The Army publications provide more detail but are also lacking in procedures that provide the correct way of conducting IO.

Military Doctrine

Field Manual 3-0, *Operations*, is the Army's guide to military operations with the most recent publication in June 2001. The purpose of the manual is to "establish the Army's keystone doctrine for full spectrum operations"(FM 3-0 2001, vii). This manual has a chapter devoted to information superiority and provides guidance on IO for both offensive and defensive actions. There is some detailed information on plans, preparation, and execution. The manual identifies some related activities, such as public affairs and civil-military operations for units to synchronize with IO. FM 3-0 provides a broad framework for Army operations and integrating IO into plans. An important aspect that is applicable to all levels is continuous coordination. The manual acknowledges the need for commanders and staff to coordinate with higher, lower, adjacent, and supported units.

Field Manual 3-13, *Information Operations: Doctrine, Tactics, Techniques, and Procedures (2003)*, provides guidance on how the Army should conduct IO. In the Preface, the manual states it is applicable to commands down to brigade level but "…is most applicable to corps and divisions." (FM 3-13 2003, iii) This manual provides considerable information on Army IO. As may be expected, this is a much more detailed

manual than FM 3-0. Some of the subjects addressed on IO are the design, elements, related activities, and security. A portion of the manual is devoted to planning, preparing and executing IO.

The planning chapter discusses how to integrate information-related activities into the military decision making process. This process begins with the IO cell receiving and analyzing the mission. As the planning process continues, the IO cell works alongside the staff to develop a course of action and issue the order (FM 3-13 2003, 5-1). This section incorporates the guidance in FM 5-0, *Army Planning and Orders Production,* for IO unique aspects.

Worth noting, FM 3-13 has a section titled "Information Operations Synchronization Matrix". As the staff develops their timeline and course of action, the IO cell is building a synchronization matrix. This matrix should "synchronize IO tasks with other combined arms tasks" (FM 3-13 2003, 5-25). Also mentioned is the fact that "many IO tasks are executed throughout an operation; some are both first to begin and last to end"(FM 3-13 2003, 5-25). In addition to this information, FM 3-13 provides some guidance on criteria of success and assessment to assist planners with determining IO effects.

Like the planning phase, FM 3-13 devotes a chapter for preparation of IO. This chapter contains a wide variety of information from refining the plan to rehearsals and logistic preparations. There is a more detailed section on assessing the effectiveness of the IO plan than found in the planning chapter. For coordination, FM 3-13 reaffirms the requirements established in FM 3-0. There is specific guidance for IO on coordination requirements within a headquarters and with other units (FM 3-13 2003, 6-1).

For the execution phase, FM 3-13 has a chapter to assist with conducting the IO plan. Topics range from assessing the IO to adjusting the IO due to an unexpected adversary reaction. FM 3-13 has a section that outlines staff coordination responsibilities within the Tactical, Main, and Rear Command Posts (FM 3-13 2003, 7-1). What is missing is guidance on how or what forum this coordination should be conducted.

Appendix F of FM 3-13 identifies responsibilities that are required of many of the staff sections and officers. This breakdown of responsibilities addresses the division and higher headquarters as well as some of the brigade structure. The types of brigades covered are, "the Stryker brigade combat team (SBCT), the Army National Guard enhanced brigade, and the divisional maneuver brigade" (FM 3-13 2003, F-12). Regardless of what level mentioned, the G-7/S-7 is responsible for synchronizing IO with the overall operation. For the other sections listed, almost all are required to conduct "coordination" with another staff element. These responsibilities and task are in addition to the responsibilities referenced in FM 6-0, *Mission Command: Command and Control of Army Forces*. Like the rest of the manual, FM 3-13 identifies what type of actions and responsibility sections have for IO, but it does not provide a system or forum to conduct the coordination.

FM 6-0, *Mission Command: Command and Control of Army Forces* provides "the basis for C2 doctrine, tactics, techniques, and procedures in all Army publications" (FM 6-0 2003, viii). This manual provides some guidance on staff responsibilities and related IO requirements. In addition to this staff responsibility, it briefly discusses targeting during the execution phase. Specifically, FM 6-0 states, "The targeting meeting is the primary targeting forum" (FM 6-0 2003, 6-26).

Field Manual 3.09-31, *Tactics, Techniques, and Procedures for Fire Support for the Combined Arms Commander*, published in 2002 provides the reader with more information on staff responsibilities. The manual is for brigade and below commanders and their staff (FM 3.09-31 2002, v). This manual also has information on how to prepare for and conduct targeting meetings. This is a good source for a doctrine approach on how to conduct a targeting meeting.

Another document that provides guidance on targeting is FM 5-0, *Army Planning and Orders Production*. FM 5-0, Appendix H, covers the targeting process and the functions of decide, detect, deliver, and assess (2005, H-1). The appendix has an example of 24 hour battle rhythm and how IO and targeting activities are incorporated. There is also some discussion of the development of high-payoff target list and target selection standards. FM 5-0 does not provide in-depth guidance but is for use as "the Army's keystone manual for planning operations" (FM 5-0 2005, v).

The guidance on how to plan IO activities in FM 3-07, *Stability Operations and Support Operations (SOSO)*, is limited. The manual reinforces the need to conduct IO as part of SOSO by listing fundamentals and emphasizing every Soldier must be involved (FM 3-07 2003, 4-25). The manual provides many considerations to make to support achievement of the commander's intent with the integration of IO. FM 3-07 does not provide detailed information for organizing the staff for IO planning, preparing and execution.

Joint Publication 3-13, *Joint Doctrine for Information Operations*, published in 1998 gives a perspective on IO from the strategic level. It provides definitions for commonly used IO words and phrases. The purpose of JP 3-13 is to provide combatant

and joint forces commander's guidance on preparing their plans (Chairman of the Joint Chiefs of Staff 1998, i). This article is suitable for anyone needing background on IO at echelons above corps or working in the joint environment.

For definitions used by the military, the Joint Forces Command website provides a glossary that is accessible from public computers (United States Joint Forces Command 2005). This website provides a list of commonly used terms to include some IO definitions. This site is useful for someone that is working with branches of the military other than the Army.

Bosnia

Operations in Bosnia in the 1990s is one of the first areas the United States military began to conduct IO as known today. In the article "IO in SOSO at the Tactical Level," the authors discuss their experience in Bosnia. The authors of this article have first hand experience with operations in Bosnia as part of Stabilization Force 12. The purpose of the article, "is intended to help battalion-level FA officers better facilitate IO at their level" (Schreckengost and Smith 2004, 13). The authors provide some examples on how battalion targeting meetings were conducted and determining measures of effectiveness. During their time in Bosnia, the military operation was a stability operation with little to no direct combat. This article provides an idea of the challenges faced by Soldiers at the battalion level that must implement IO plans developed by higher headquarters.

Kosovo

The campaign in Kosovo provides more examples of IO conducted as part of a stability operation. The Kosovo campaign discussed for this thesis is the actions of

NATO in 1999 to present to bring peace to the region. The article by Wood and Mercer provides another view on operations in Kosovo. Their article, "Building the ACE in Kosovo," is from the perspective of the intelligence section. The authors of this article served in the 1st Infantry Division and participated in Task Force Falcon as part of the Kosovo Force (KFOR). This article focused on the Analysis and Control Element (ACE) of the 101st Military Intelligence Battalion as the United States deployed to Kosovo. The article discusses the large amounts of information available and the difficulty in analyzing it. The article also discusses targeting and notes, "TF Falcon was unique in that we focused our targeting on information operations" (Wood and Mercer 2001, 36). The authors also provide some lessons learned for skills to train before deployment. This article is useful for someone preparing to deploy for a stability operation.

An article published in the *Field Artillery Journal* in May 2001 provides advice on nonlethal targeting based on experience in Kosovo. In "Non-Lethal Targeting Revisited," the authors discuss the use of IO as part of operations by 1st Armored Division. The article provides information on the type of IO conducted and the intelligence effort to support targeting. There is considerable discussion on the targeting process. The article explains how the meetings and targeting groups worked to develop high payoff target list and execution matrixes (Gonzales 2001, 7). This article is useful for anyone that will work in a headquarters as part of IO in a stability or support operation.

Operation Iraqi Freedom

Current operations in Iraq are providing the military with information on a wide range of topics. Many of the United States forces in Iraq have experienced high

operational tempo combat and stability operations. Since the end of major combat operations in 2003, the military has rushed to capture the information and make a determination of what worked and want did not.

In the July 2004 edition of the *Field Artillery Journal*, the article "Information Operations for the Joint Warfighter" discusses the increasing role of the fire support officer in IO (Batschelet 2004,8). The author is a field artillery colonel and the article begins with a brief overview and the organizations responsible for IO at the strategic level. There is some discussion on the capabilities of IO. There is also information on how some units conducted operations during Operation Iraqi Freedom (OIF). The last part of the article provides some guidance for fire support officers that may have the duty to coordinate IO. The guidance provides list actions a person can take to gain knowledge on IO. What is lacking is how the fire support in Iraqi conducted the planning and integration portion during operations.

Another article from the military intelligence perspective is "Intelligence Battlefield Operating System Lessons Learned: Stability and Support Operations During Operation Iraqi Freedom." The author of this article served as the division G-2 for the 101st Airborne Division during OIF. The author discusses the difficulties incurred during the stability operations and support operations for targeting operations. The article provides some limited insight into the role of the Information Environment Working Group (IEWG) during combat and as the division changed to stability operations (Reyes 2004, 11).

A liaison officer for the 101st Division wrote the article, "Iraq: 101st Division LNO in the V Corps FECC." The author, a United States Army lieutenant colonel, served

as the division liaison to V Corps during Operation Iraqi Freedom. The article discuss some of the expertise required by a liaison officer to a higher headquarters Fires and Effects Coordination Cell. One of these areas of expertise is IO and "the various assets to execute these operations" (Sweeny 2003, 44). The article provides recommendations on what a liaison officer must know to be effective in targeting meetings and assisting both headquarters in accomplishing missions.

An article that points to the shortcomings of information and technology in high-intensity conflict is "How Technology Failed in Iraq." In this article, the author interviewed people associated with high-intensity ground operations during the invasion of Iraq in 2003. This article discusses information and the ability of commanders to receive and digest what is available (Talbot 2005, 36). The article does not provide guidance on planning and executing IO but does provide examples of the challenges small units faced in receiving and processing information.

Transformation

The military transformation now underway is proving a challenge for military planners for IO. The article "Information Operations in the IBCT" gives a picture of the current structure of the interim force (Glenister 2002, 60). The author of this article was a major served with the 3rd Interim Brigade Combat Team, 2nd Infantry Division. Her duty position was the IO officer. The article discusses the brigade staff organization and the assets available to the brigade. The author discusses the role of the information operation section in the brigade. The article also gives some insight into the daily routine of determining effects and integrating into the daily targeting meetings. This article is a

good source for information relating to the challenges facing the Army as it moves from legacy force, incorporates new technologies, and identifies shortcomings.

Another article about transformation and IO is “Space: Enabling Army Transformation.” This article discusses the issues of military transformation and space operations. The author highlights some of the assets that the Army can incorporate into operations. The article identifies the need to provide “space-qualified soldiers” at the brigade level. One of the concerns is a decision to augment the brigade on a temporary basis. A temporary augmentation solution could have a ripple effect throughout the force. There is some other discussion that identified the assets at the division level and some of the resources available to the ground commander (Baehr, Houston, and Byrum 2001, 36). Overall, this article provides a general overview of capabilities of space assets that may be available to the unit commander.

“Synchronizing Lethal and Nonlethal Effects in 1/25 SBCT” also describes the challenges to integrate IO into the interim force. The authors of this article are officers who served with a Stryker brigade. While part of the unit, the authors deployed to the National Training Center in October 2003. While in the SBCT for this deployment, the authors worked in the Fires and Effects Coordination Cell. According to the article, “The key to the synchronization of nonlethal effects in the synch meeting was the IO working group (IOWG), normally conducted the evening before the synchronization meeting” (Hamilton and Gist 2004, 22). This is another useful article for lessons learned with an IOWG in the interim force.

Miscellaneous Military Information

The numerous military journals provide researchers with sources for IO material. These journals provide a combination of general military information and provide branch specific articles. For most of the journals containing articles about IO, the information did not fall into a specific category.

Determining if an information operation plan is effective can be difficult. "Measures of Effectiveness in the Information Environment" gives some idea on how to determine if the IO plan is working. This article addresses some of the issues unique to IO. One of the authors of this article was, at that time, a United States Army Infantry lieutenant colonel (promotable). The other two authors are retired United States Army officers. The authors discuss some of the challenges in measuring the effects of IO and offers suggestions in assessing IO. In this article, the authors define measures of effectiveness. For this article, measures of effectiveness "are standards of reference used as the basis of comparison to evaluate the success or progress of an operation" (Grohoski, Seybert, and Romanych 2003, 13) Besides defining the MOE, the authors offer some suggestions on developing MOEs and assessing the effects. This is a useful article for anyone that will conduct IO, regardless of what level.

Joint Vision 2020 was prepared in 2000 to provide the military with a date to focus research and development efforts. The publication recognizes the need for IO and provides a general overview. *Joint Vision 2020* recognizes that determining the effectiveness of IO is difficult but does not provide any solutions or answers (Chairman of the Joint Chiefs of Staff 2000, 35). This publication is suitable for someone wanting

additional information on the military efforts to transform and some of the challenges the military will face in the future.

An article that provides a view from another service is "ForceNet Turning Information into Power." This article is about the United States Navy's efforts to incorporate the latest technology into operations. The authors provide some general guidance on how to gather and use information and offer suggestions on areas for focus. (Mayo and Nathman 2003, 42) However, the article is too general and does not provide how to incorporate the assets at the brigade or division level.

"Intelligence Support to Information Operations" discusses the capabilities the intelligence community provides to IO. The author, a retired Chief Warrant Officer Three, published this article while working at the U.S. Army Intelligence Center. The article identifies specific areas that intelligence operations provide support (Sieting 2003, 56). However, the article does not provide any suggestions on how to incorporate those products into planning or execution. This article is a source for what military intelligence can do for the commander but does not give any practical advice on how to synchronize the support.

"Deep Attacks from the Air" was written by a lieutenant colonel in the United States Army. The author published this article while serving as an aviation battalion commander. The author calls on the Army to improve the organization of the division Fires and Effects Coordination Cell (FECC). His argument is the Army needs to adequately resources the FECC. Without adequate resources for the FECC, the FECC and the organization, will struggle to meet their requirements (Williams 2004, 9). This short

article gives some appreciation of the difficulties in conducting targeting operations at the division and corps level.

The article “Information Operations: Doctrine, Tactics, Techniques and Procedures” was published in 2001 and discusses the integration of IO into the Army in the 1990s. The author is a retired United States Army lieutenant colonel. The article also identifies three differences between Army and joint IO. Those three differences are the definition each uses to define IO, applying offensive and defensive IO, and the definition of information systems (Wright 2001, 31). This article is useful to anyone needing a background on IO and the role of the staff.

The *Joint Task Force Information Operations Handbook* published in August 2002 “provides an introductory general overview of IO at the JTF (Joint Task Force) level . . . provides a basic starting-off point for persons unfamiliar with . . . IO” (United States Joint Forces Command. 2002, 2). The handbook provides a considerable amount of information about IO in an easy to understand format. Even though the handbook is for the JTF, it provides information that may be useful to IO planners at the brigade and division levels.

Summary

There are many different sources for IO techniques and procedures. Official military documents range from broad joint publications to newsletters of recent operations. The Army field manuals provide the commander and his staff with planning considerations and a division of responsibility within the organization. All of the writings recognize the complex nature of IO and difficulty of synchronizing all operations. As the information operation doctrine matures, the manuals are likely to develop more detail and

usefulness for brigade and division staff officers. Until then, readers needing guidance on specific methods of how to conduct planning, preparation and execution within a headquarters will have to rely on journals and newsletters that have the latest information.

CHAPTER 3

RESEARCH METHODOLOGY

The method selected for this thesis is a combination of historical research, documentation review and interviews of experts. Using this wide range of information, this thesis will conduct a detailed analysis and use that analysis to draw conclusions. The analysis and data used will be limited to events since the mid 1990s.

This thesis attempts to answer what the benefits are to an Effects Coordination Cell methodology. This question and several subquestions should provide an answer to the problem the Army faces -- how should units plan, prepare and conduct IO? Since this is an Army issue, the majority of the research will use United States Army publications and resources.

In an effort to refine the research and answer the questions, the unit level for the thesis question is the brigade and division. IO encompass all levels of military operations from national to the lowest tactical level. However, focusing the thesis on IO at the brigade and division will limit the topic, ensure the research address the primary question and sub-questions, and provide the reader with an appropriate answer.

The historical research will rely on published official documents and individual written records in journals and magazines. These historical documents will encompass military operations from Operation Desert Storm to today. The strength of using this broad written record is it captures much of how the Army conducted past operations. There are several weaknesses associated with the broad written records. One of those weaknesses is the bias of the author. As researchers review the articles, the researcher

must review the content to ensure the author's agenda or personal reason for his view does not adversely influence the thesis research. Closely related to the issue of bias is the issue of article providing only one view or a lack of depth. The research will overcome all of these issues associated with historical research by using a variety of sources.

Another part of the research will incorporate review of official documents. A benefit of conducting this documentation review is it is free of bias or self-serving statements. The document review will provide a description of current military doctrine and provide some limited insight into how the military is directing current operations within command posts. Because of the large amounts of official material available, this method will be time consuming and may not provide complete information to answer the questions. Another aspect of the documentation review that requires other methods for research is the lack of flexibility of the doctrine. As written, the doctrine may not allow for unique circumstances that face units in today's contemporary operating environment.

A review of IO is necessary to build the framework for the research. For the purpose of this research, the thesis will use the definition of IO located in FM 3-13. FM 3-13 defines IO as, "The employment of the core capabilities of electronic warfare, computer network operations, psychological operations, military deception, and operations security, in concert with specified supporting and related capabilities, to affect or defend information and information systems, and to influence decision making (2003, Glossary-12). This specific definition eliminates confusion in defining IO. Another reason to use this specific definition is the different sources covers a combined fifteen-year time. During that time, the definition of IO has evolved and may not cover all that encompasses IO using today's definition.

With this definition and research conducted, the next step will be to analyze the data and reach a conclusion. To answer the primary research question, the thesis will compare the two different methods of IO staff organization to determine which provides the better system. The criteria used for this comparison is contained in FM 3-0. This thesis uses FM 3-0 because it "establishes the Army's keystone doctrine for full spectrum operations" (2001, vii).

Using FM 3-0, this thesis will use seven areas for consideration to answer the primary thesis question. The research will seek to determine which method better supports these important aspects of Army operations. The first of these criteria is principles of war because they are "the enduring bedrock of Army doctrine" (FM 3-0 2001, 4-12). The tenets of Army operation is the next criteria selected because of their linkage to the principles of war. This research uses the elements of combat power as criteria since Army doctrine considers it the "building blocks that underlie the generation of combat power" (FM 3-0 2001, 4-2).

The fourth area for consideration is the battlefield organization. The battlefield organization identifies "three all-encompassing categories of operations" that must be accomplished within the unit's area of operation (FM 3-0 2001, 4-22). The battlefield operating systems (BOS) "are the physical means used to accomplish the mission" (FM 3-0 2001, 5-15). The research uses the BOS as criteria because it encompasses all parts of the unit at the brigade and division levels.

The ability to operate across a wide range of conflicts is also a consideration. The sixth criteria is full spectrum operations since it covers offense, defense, stability operations and support operations. The last criterion is The elements of operational

design. The elements of operational design incorporate the end-state, center of gravity and the culminating point and "provides a conceptual linkage of ends, ways, and means" (FM 3-0 2001, 5-6).

The research will not address whether units should or should not conduct IO. The Department of Defense and the United States Army is committed to the concept of IO. Articles and press conferences concerning an aspect of IO discuss the importance of information and IO being a "core capability" for military operations. Because of the requirement to conduct IO, the research will not attempt to answer whether Army units should or should not conduct IO. The research will only focus on what method to plan, prepare and execute IO.

The research for this thesis is quite challenging. Compared to traditional military operations, the concept of IO, as we think of it today, is relatively new. As a result, historically significant people and military experts have written few argumentative articles. Another challenge to the study of IO is the length of time required to see results. Because some of the targets for IO are human, it is difficult, if not impossible, to determine if the IO plan had any effect. With using sound principles from FM 3-0 as the criteria for evaluating the methods, this research can find a logical answer to the research questions.

Using the data obtained, this thesis will make a comparison of the different systems used by brigade and division headquarters staffs for IO. This thesis will compare and contrast the different methods for IO staff organization and evaluate those methods using established principles to find a suitable answer for the planning, preparing and

execution of IO. By limiting the research to operations conducted at brigade and division level, the thesis will be able answer the question of the thesis.

CHAPTER 4

ANALYSIS

What is the best method for a staff to conduct planning, preparation and execution of IO? There are many approaches to determine the answer to this question. As discussed in Chapter 3, this thesis will use FM 3-0, *Operations*, as a foundation to answer the primary question and sub questions. As a starting point, this thesis will reference seven areas in FM 3-0 to evaluate the methods of conducting IO planning and execution. Using the criteria established for evaluation, this thesis will compare the advantages and disadvantages of each IO method. Before evaluation in respect to FM 3-0, an analysis of each method is required.

Staff Composition

In examining the problem of how to conduct IO planning and execution, one of the first issues to examine is who is involved in the meetings or cells. Typically, representatives from both lethal and nonlethal combat systems are involved in IO planning. Along with these representatives, other potential participants are members of the legal team, operations officer, chief of staff, civil-military, psychological operations, liaison officers and deception planners. Figure 1 provides an example of the people involved in IO. The participants of these meetings often have many duty requirements and other time consuming obligations that require their attention.

Battle Rhythm

A look at a sample battle rhythm (figure 2) shows the number of meetings that occur throughout a typical day in a division. Within the command post, some of the meetings are shift change briefs, battle update briefs and targeting meetings. There will

also be meetings for more specific areas the Soldier will need to attend. For some of these meeting, the individual is not only part of the audience, but an active participant. As a participant, they will often have information slides or other staff products they must produce before the start of the meeting.

Time

The number of requirements quickly consumes the time available within the twenty-four hour period. As the Soldiers go thru a 24 hour day, demands on their time increase. Figure 3 provides some idea of the daily requirements that a Soldier may be involved. The members of the command post must disseminate the information gathered and prepare for the next meeting. Throughout their shift, they must also maintain situational awareness. In addition to these tasks, the staff member requires some time for rest and personal hygiene.

Each of the methods (ECC vs. separate IOWG and Fires Cell) for IO shares one similar issue. That issue is when to conduct the meetings. A concern for these working groups is do they require the participants to meet daily, weekly or bi-weekly. As a core competency, should units conduct IO meetings more than once a week? The time of the day for the meeting is also an issue for consideration. Higher headquarters requirements dictate the time of day for the staff meetings. The staff must consider the battle rhythm of higher headquarters. When does the higher headquarters conduct their meeting and what is the purpose? Is the purpose to provide information or pull information from the subordinate? These two factors will drive what time of day the unit conducts meetings.

Manning

As the Army transforms into brigade combat teams (BCT) and unit of executions (UEx), units are incorporating additional duty positions into the staff organization. Previously, unit manning and allocated positions forced commanders to dual-hat individuals. An example of this is having the field artillery officer fill the role of the unit IO officer. Under the BCT/UEx concept, there are now positions allocated for a separate IO section. Assuming the unit fills these positions with Soldiers of the required rank and skill, this should not be a factor in determining the best method of organization for IO. However, without the required Soldiers, units will have to continue to dual-hat individuals to meet the needs of IO.

Effects Based Operations

With the assembled staff, the unit commander will articulate his commander's intent and the desired end-state. For the unit commander and the staff, there are many considerations for conducting operations. All the considerations and planning are oriented to achieving the commander's intent. Today, the Army and the DOD is moving toward Effects Based Operations (EBO) to achieve the desired end state. The movement to EBO is a result of the experiences of Vietnam and Desert Storm (Davis 2001). A definition for EBO is "A process for obtaining a desired strategic outcome or "effect" on the enemy, through the synergistic, multiplicative, and cumulative application of the full range of military and nonmilitary capabilities at the tactical, operational, and strategic levels" (United States Joint Forces Command 2005). Increasingly, unit commanders are required to consider not only the lethal assets at their disposal, but also the nonlethal assets available.

Effects Coordination Cell

A step toward achieving EBO is the ECC. For this thesis, the ECC is an organization that "brings all the agencies involved in deep operations together in one location to facilitate the exchange of information and coordination" (Sweeny 2003, 40). Under the UEx concept, the ECC contains representatives of IO, Fires, Staff Judge Advocate, current operations and aviation. The purpose of the ECC is to manage the daily operations of the unit in a logical, orderly manner. The ECC does this for both the lethal and nonlethal operations while incorporating IO plans while focusing on effects based outcome.

Information Operations Working Group

Under the Army of Excellence or legacy force, a unit typically uses an IOWG to coordinate IO. The purpose of the IOWG is to provide a "forum to coordinate . . . IO, including IO targeting tasks" (Gonzales 2001, 8). An IOWG can meet as often or as little as a commander desires. For example, the IOWG can meet on a daily, every other day or weekly schedule. When the IOWG meets, some of the topics of discussion are the status of the IO campaign, IO themes and upcoming events. The IOWG requires the attendance of many of the same people that attend various targeting meetings. Daily IOWG meetings can become labor intensive and may see little in the way of progress with long term IO goals. Conducted as a separate, weekly meeting, the IOWG does not require much dedication for the individuals concerned. As a weekly meeting, the IOWG requires little of the valuable time of the members. Weekly IOWG usually occur in low intensity operations where units measure results over a long period.

Fires Cell

The Fires Cell operates on a daily basis to synchronize the available fire support assets. Much of the focus of a Fires Cell tends to be oriented toward lethal effects with IO considerations a secondary concern. The Fires Cell at the division level integrates numerous field artillery assets, rotary and fixed wing aviation, intelligence and observers into a plan focused on achieving the commander's intent. This cell has a diverse composition of personnel. It is generally not limited to a specific structure but tailored to meet the mission requirements. A driving factor for the Fires Cell is the Air Tasking Order (ATO). The daily battle rhythm in the Fires Cell often revolves around the ATO. The Fires Cell is very effective in lethal, high-intensity conflicts. As a mission progresses to a low-intensity conflict, the Fires Cell does not provide the commander with many practical solutions to typical day-to-day challenges in SOSO.

Convening Meetings

The decision to conduct meetings is often situation dependent. In a fast moving, high intensity operation, it may be appropriate for the IOWG to meet only weekly and focus the staff efforts on the lethal effects of the Fires Cell. During high intensity operations, the enemy situation changes rapidly and requires the staff to adjust accordingly. For operations that are high tempo, high intensity, the staff develops the IO plan in advance and usually initiated before the first lethal firefight. One of the reasons for this advance planning is to shape the battlefield. The commander wants to set the conditions for the decisive operation and initiates the IO plan as soon as possible. Another reason for initiating the IO plan quickly is the difficulty in measuring the effects. The long-term goals of the IO plan may take weeks or months to achieve. With the

results slow to materialize, the staff may only need to convene a weekly IOWG. During this weekly meeting, the staff reviews the commander's intent; effectiveness of the current operation for IO, and reviews or adjusts command themes.

Staff Organization

The organization of the unit staff is also an area for consideration for IO planning and execution. The traditional Napoleonic structure is the model for the legacy force. Legacy units arrange their staff sections around the role of the G/S-1, G/S-2, G/S-3, and other similar staff elements. This method leads to increased specialization within each area but lends to little cross talk among staff sections. Another method of staff organization is the functional area arrangement. For the functional area staff arrangement, units arrange the staff into sections such as intelligence, effects and operational maneuver (Fontenot, Gregory, E. J. Degen, and David Tohn 2004, 43). The transformation to the UEx has the staff organized along functional lines within the tactical command post (Headquarters, US Army Training and Doctrine Command 2004, B3). This organization improves staff cross talk and reduces stove piping of information. The effects element of the functional area staff facilitates IO integration into the planning and execution of unit operations.

Measures of Effectiveness

To achieve the desired results, IO are not limited to nonlethal means. IO can incorporate lethal weapons and effects into the IO plan to achieve the desired results. An example is the destruction of an antenna tower using high explosives. The difficulty for a staff in IO planning and executing is determining if the actions create the desired results. In considering which method to use, the research must consider which method for IO

staff organization provides the best approach to measures of effectiveness (MOE). With the separate IOWG and Fires Cell, there are different mechanisms to gather results and determining MOE. The Fires Cell will receive relatively immediate feedback on the effectiveness of a lethal or destructive attack. The feedback will provide the physical characteristics of the effectiveness of the lethal fires. For example, an attack on a tower would be easy to determine the immediate results of a destructive attack. The difficulty for IO is determining MOE for nonlethal fires.

The use of well-developed, properly selected MOE can assist the staff in their effort to determine effects of their operations. In the example above, developing MOE is relatively easy. If the tower collapsed, the destruction of the tower is simple to measure. The challenge for planners is selecting MOE and instituting a process to gather the intelligence to support a decision for things the Soldiers cannot see or touch such as human feelings, emotions and public support of an operation. The IOWG faces similar challenges in determining MOE.

The IOWG also seeks to achieve results that meet the commander's intent and use a suitable MOE. The IOWG analyzes the current situation and examines areas apart from the Fires Cell. As the IOWG plans and executes, it will utilize a variety of means to gather data. Some of these means are the civil affairs and psychological operations sections that target humans. The ability to measure the efficiency and effectiveness of the IO plan relies on their ability to gather information from credible sources. The gathering of this information takes place daily as the units conduct operations in the AO and interact with the local population. The IOWG can also use sources from units other than

intelligence assets. Regardless of how a unit conducts IO, selecting the correct MOE is essential to determine if the plan is successful.

Effects Tasking Order

One approach to achieving the desired IO results is to create a system similar to attack guidance matrix (AGM) and air tasking orders (ATO). The effects tasking order (ETO) provides subordinate units an easy to follow format for planning and execution. This system approaches IO with the requirement to identify who, what when, where, and why for IO.

The staff can integrate the ETO into the ECC or the IOWG. The ECC provides the necessary representatives from IO, fires and others present to develop and implement the ETO. These representatives in the ECC can develop the ETO as a section with little outside assistance. Once developed, the ECC can review the ETO daily and modified as required. Under the separate IOWG, the ETO requires more outside assistance such as that available by the Fires Cell. The IOWG will require coordination with the Fires Cell and other systems to achieve many of the desired lethal effects. A second consideration to use of the ETO in a separate IOWG and Fires Cell is frequency of review. If the battle rhythm requires the IOWG to meet other than daily, this may not facilitate achieving the IO plan or adjusting the plan in the most efficient manner.

As the ETO concept evolves, a concern is the ETO will become another annex or tab in an operation order. Without proper supervision, subordinate units may ignore or provide little attention to the ETO. A challenge for commanders and their staff will be executing the ETO and have it executed with the same amount of enthusiasm as a lethal attack. The method chosen for ETO development and execution can have an impact.

Assets

Many different sections within the unit headquarters own the assets to accomplish the IO plan. Some examples are intelligence gathering equipment, indirect fire assets, rotary-wing assets, psychological operations loudspeakers and civil affairs projects. A limitation for an IO planner is the lack of resources to accomplish an IO task. An IO section does not own equipment, personnel or resources in the same way as an infantry, armor or artillery unit. The IO planners must rely on tasking subordinate units. The ability to task a subordinate unit is limited to the amount of latitude given to the IO section by the commander, G/S-3 or the chief of staff. Within an IOWG, the limitation on tasking can delay the ability of the group to make a plan. The ECC has a broader range of assets to assist the IO planners in achieving the desired results.

Targeting

The flow of information and targeting methodology of Detect, Decide, Deliver and Assess (D3A) is critical for successful mission accomplishment. Both methods require each part of the targeting methodology to be successful in IO operations. Both methods for IO staff organization are able to provide guidance for each part of D3A. The advantage for targeting goes to the ECC. The ECC provides the centralized cell to coordinate ISR and make the decision on the best method of engagement. The ECC is able to incorporate the various collection and delivery assets shown in figure 4. Another benefit of the ECC is the consolidation of information for building high payoff target list, attack guidance matrix, synchronization matrix and other fire support assets along with the required products for nonlethal aspects of IO. Figure 5 provides some insight into

other challenges of targeting and meeting the operational requirements and daily battle rhythm.

BCT/UEx Expectations

The Army expects units of the future to be interchangeable. Across the Army, all units are transforming to look alike with manning, structure organization equipment, and capabilities. This change is occurring not only in the active force but also in the reserve and National Guard. This change is occurring to meet the needs of a post-Cold War world in which the United States is required to deploy the right size of forces rapidly. In order to be effective as a modular force, each BCT/UEx must be able to function effectively, regardless which units the Army assigns or attaches.

Selection of the type of method for IO planning in a BCT at Fort A may differ from the method used at Fort B. This difference in planning methods may be insignificant as long as the unit works with its habitual UEx. The role of BCTs and the ability to conduct operations will change dramatically from the legacy force (Headquarters, US Army Training and Doctrine Command 2004, 7-10). Units will have the capability to conduct operations at a greater range and with a variety of attached and organic units. To support these operations and communicate with the UEx, the BCT headquarters will consist of two command posts and the command group.

Principles of War

With these issues in mind, FM 3-0 provides other areas for consideration in determining which method is more beneficial. The first area to consider is the Principles of War. The principles of war were selected as an area for consideration because they are "the enduring bedrock of Army doctrine" (FM 3-0 2001, 4-12). In evaluating the conduct

of IO, the principles provide a wide range of areas to consider. The Principles consist of nine proven characteristics. The most important of these principles for IO and determining the best method is objective followed closely by unity of command. The remaining Principles are of equal importance. FM 3-0 defines objective as “direct every military operation toward a clearly defined, decisive, and attainable objective” (2001, 4-12). The use of the ECC ensures all IO goals and tasks are integrated with on-going operations.

The characteristic of unity of command “ensures unity of effort under one responsible commander” (FM 3-0 2001, 4-14). Much like objective, this characteristic works well with the ECC to ensure the staff integrates IO goals and tasks with on-going operations. With the ECC driving operations, the commander has greater ability to synchronize IO efforts with operations compared to the separate IOWG and Fires Cell method for staff organization.

The characteristic of mass also better supports the ECC. Mass is designed to “concentrate the effects of combat power at the decisive place and time” (FM 3-0 2001, 4-13). By using the ECC, all effects (lethal and nonlethal) are able to be coordinated at the same time. Separate meetings under the IOWG and Fires Cell tend to focus on only nonlethal (IOWG) or lethal (Fires Cell). For instance, a unit can achieve the desired effect by both lethal and nonlethal means. As a result, both the IOWG and Fires Cell may spend time and resources developing a plan to accomplish the desired effect. Under the ECC concept, representatives of all available assets provide input and determine the most efficient method for achieving the desired effects.

Economy of force is a characteristic of the principles that "allocates minimum essential combat power to secondary efforts" (FM 3-0 2001, 4-13). Coordination of IO efforts in the ECC ensures that the staff employs the limited IO assets in supporting or sustaining efforts only as required. The use of one group for planning, preparing and executing a plan is a way to keep plans from becoming overly complex. For the principle of simplicity, the use of the ECC reduces the internal staff coordination. The use of separate IOWG and Fires Cell better supports the characteristic of security. The IOWG allows more time to analyze unconventional threats to friendly forces. The use of the IOWG allows the spend time analyzing the environment and determine what methods are available to defend against an attack. For the remaining principles, there is no marked advantage for use of either method of IO staff organization.

Overall, the ECC best serves the concept of the principles of war. The use of the ECC better supports five of those characteristics of the principles. The ECC allows the commander to make the best use of his forces while ensuring the principles of objective and unit of command permeate throughout the unit.

Tenets

A second area for consideration from FM 3-0 is the tenets of Army operations. The tenets "build on the principles of war. They further describe the characteristics of successful operations. These tenets are essential to victory" (FM 3-0 2001, 4-15). There are five distinct tenets to use to evaluate the methods of IO planning at brigade and division level. These tenets are depth, synchronization, initiative, agility and lethality. The most important tenet for IO consideration is synchronization. Synchronization is the most important because it ensures all efforts move toward one objective.

FM 3-0 defines depth as “the extension of operations in time, space, and resources” (2001, 4-17). The ECC facilitates the use of all resources because of the centralized planning and execution. With the ECC concept, representatives of both lethal and nonlethal means are present to coordinate all available assets. With all assets coordinated in one cell, the staff is able to achieve depth in time and space. The ECC is able to minimize underlap/overlap in the area of operations (AO).

The definition of synchronization “is arranging activities in time, space, and purpose to mass maximum relative combat power at a decisive place and time” (FM 3-0 2001, 4-17). The ECC allows commanders to effectively mass effects and ensure IO activities remain synchronized with maneuver operations. Much like depth, the staff is able to oversee all IO functions as part of ECC and avoid a desynchronized plan.

FM 3-0 defines initiative as, “setting or dictating the terms of action throughout the battle or operation”(2001, 4-15). Use of the ECC allows planners and executers to understand the overall plan and the commander’s intent for effects. High paced offensive operations require the use of initiative in conducting missions. By conducting IO using the ECC, all participants have an understanding of the effects desired and the capabilities and limitations of the systems employed to achieve the desired effects.

The remaining tenets of Army operations are agility and versatility. The use of separate planning groups for IO maximizes these two tenets. Versatility is “the ability of Army forces to meet the global, diverse mission requirements of full spectrum operations” (FM 3-0 2001, 4-17). The separate groups allow units to make extensive plans in lethal effects (Fires Cell) or nonlethal effects (IOWG). The same applies to Agility. FM 3-0 defines agility as “the ability to move and adjust quickly and easily” (FM

3-0 2001, 4-16). The method of using separate IOWG and Fires Cell allows the commander and staff to react rapidly to changing situations. The separate methods give the commander a section that focuses on a particular area (lethal or nonlethal) that can react smoothly to changing the environment.

The unit use of the ECC supports the tenets of depth, synchronization and initiative. Overall, the tenets work best with the ECC method for IO. The ECC allows the commander to make a synchronized plan that uses all of his resources and at the same time allows his subordinates to use their individual knowledge to react to changing situations.

Elements of Combat Power

The elements of combat power are "the ability to fight" (FM 3-0 2001, 4-3). The commander uses the elements to defeat the enemy and prepare for the unexpected. In selecting a method for IO planning, the use of the ECC provides the best method to combine the elements of combat power. The ECC effectively synchronizes the maneuver, firepower, leadership, protection and IO of the unit. The ECC allows the commander to focus combat power and achieve decisive results. In the words of FM 3-0, "Information enhances leadership and magnifies the effects of maneuver, firepower, and protection" (2001, 4-10). With the importance of information to enhance leadership, a commander cannot afford to have separate IOWG and Fires Cells.

Battlefield Organization

A broad area discussed in FM 3-0 is battlefield organization. The battlefield organization "is the allocation of forces in the AO by purpose. It consists of three all-encompassing categories of operations: decisive, shaping, and sustaining" (FM 3-0 2001,

4-22). The ECC method allows units to maintain focus of IO efforts and present a common theme throughout the area of operation (AO). This is extremely important throughout the battlefield organization. As units conduct shaping, decisive and sustaining operations, all friendly forces must understand the purpose and objective of the mission. The ECC method centralizes IO efforts and minimizes the chance that the unit will conduct unwanted or duplicate efforts in secondary efforts.

Battle Command

For the commander, he must possess the ability to see himself, the enemy and the end state. The commander accomplishes this through Battle Command. FM 3-0 defines battle command as "exercise of command in operations against a hostile, thinking enemy" (FM 3-0 2001, 5-1). In comparing methods, the ECC better facilitates the commander's ability to control IO and exercise battle command. The centralized nature of the ECC supports the commanders need to visualize, describe and direct IO and other combat operations. During the visualization portion, the commander must determine his battle space. The commander develops his understanding of the battle space and describes the operation to determine the outcome of the operation and his intent. The commander issues this by developing decisive, supporting and sustaining efforts and key tasks to accomplish. The ECC is a better method because it provides the commander a centralized cell for planning IO. The ECC can conduct a mission analysis and provide recommendations to the commander in a timely manner. Using the IOWG and Fires Cell, the amount of time needed for coordination and staff-cross talk is increased. This results in a slower response to the commander.

Battlefield Operating Systems

To accomplish the mission, the commander uses the battlefield operating systems (BOS). The BOS "are the physical means (soldiers, organizations, and equipment) used to accomplish the mission" (FM 3-0 2001, 5-15). There are seven different BOS elements and each contributes to IO in a unique way. The first element of the BOS is Intelligence. Intelligence plays a key role in IO because it allows commanders to gather information and determine if their IO plan is effective. The gathering and dissemination of intelligence is critical to mission success. The separate methods for IO staff organization rely on information gathered by outside sources to supplement their collection efforts. The same is true for the ECC concept. However, the ECC concept allows the cell to share information gathered by a variety of lethal and nonlethal sources within the cell and reduce the reliance on outside sources.

Maneuver is the second element of the BOS. Maneuver is a means to conduct IO and done to "destroy enemy forces or hinder enemy movement by direct and indirect application of firepower, or threat of its application" (FM 3-0 2001, 5-16). The ECC supports maneuver better because it ensures IO messages and operations of all assets are supporting maneuver. The separate methods for IO staff organization provide the unit with sections of experts in lethal and nonlethal fires. For the BOS of maneuver, this is not the best way of conducting IO. From the definition above, one aspect of maneuver is the threat of use. As the IO plan evolves and the unit executions that plan, the threat of the use of force must be credible. An IO plan using the threat of force as a tool is counter productive if the maneuver force cannot deliver. The use of the ECC reduces the chance

of sending mixed IO messages and focuses the efforts of the staff on supporting maneuver.

The BOS element of fire support covers a wide range of operations that include use of lethal and nonlethal fires and target acquisition. An argument against the ECC is the lack of focus on lethal fires. As the Army moves to EBO, the ECC will enhance the ability to achieve the desired results. The ECC provides the unit with a way to focus all efforts of the fire support staff on achieving the desired effect(s) for lethal fires in concert with the IO plan.

Another element of the BOS is command and control (C2). C2 is the "system (that) supports the commander's ability to make informed decisions, delegate authority, and synchronize the BOS" (FM 3-0 2001, 5-17). C2 allows the commander to direct the organization and gather information. For the purpose of IO, the activities of the unit must support the commander and synchronize the BOS. The separate methods for IO staff organization provide the commander with information and some ability to delegate authority. On the other hand, the ECC can provide the commander with a more effective means of synchronization and greater ability to make an informed decision.

Using the ECC benefits the commander's ability to exercise four components of the BOS. The components best supported by the use of the ECC are C2, intelligence, maneuver and fire support. C2 is the most important for IO followed by intelligence. The remaining elements of the BOS are of equal importance in respect to IO staff organization. For the BOS elements of air defense, mobility/countermobility/ survivability (M/C/S), and combat service support (CSS) there is not any appreciable gain for choosing one method over another.

Full Spectrum Operations

Full spectrum operations are “operations Army forces conduct in war and military operations other than war” (FM 3-0 2001, 1-4). To support full spectrum operations, units need an IO method that is functional in all circumstances. The ECC supports full spectrum operations because of the ability to synchronize IO in plans and execution. Units plan and conduct IO throughout an Army operation. Usually, well before the typical lethal force-on-force battle, units begin conducting IO as part of a shaping operation. As the campaign continues and the operation transitions into the final phases, the unit must conduct stability operations and may conduct support operations at the same time. The conduct of the stability or support missions typically requires extensive use of IO.

The commander and the staff must integrate IO into other tasks conducted. Psychological operations, civil affairs, military police, combat arms soldiers and a variety of other Soldiers may accomplish those tasks. In addition to the tasks conducted by Soldiers, the IO planners have to consider the actions taken by host-nation authorities, non-governmental organizations and humanitarian relief organizations in the AO.

Consideration for full spectrum operations is important because of the nature of current warfare. A brigade or division can be in the situation of conducting all of these missions simultaneously. Events in Iraq are demonstrating the need for units to be flexible and posses the ability to conduct the complete range of full spectrum operations at any time. In looking at the problem of how to conduct IO planning, a possibility is that one method may be better during a high or low tempo operation than the other method. Given the need for a unit to be capable of conducting full spectrum operations, this is not

a feasible concept. A unit does not have the ability to determine what missions, the type of tempo, or the circumstance it will encounter for a mission. Because the situation may change, the unit must always possess the capability to perform to the same level of effectiveness regardless of the type of operation. The ECC is the best option for a unit to conduct full spectrum operations.

Elements of Operational Design

The elements of operational design "are tools to aid designing major operations. They help commanders visualize the operation and shape their intent" (FM 3-0 2001, 5-6). As the commander visualizes how he wishes to accomplish the mission, he uses the elements of operational design to identify aspects of the operation. A key aspect is how the commander sees the end state and military conditions of the operation. At the same time, the commander identifies the center of gravity (COG) for both his forces and the enemy forces. The identification of the COG and the expected decisive points (DP) and objectives allow the commander and staff to focus IO efforts toward the same goal.

Other pieces of operational designs are lines of operation, culminating points, operational reach, simultaneous and sequential operations, linear and nonlinear operations and tempo. Each of these pieces is important consideration for the commander and staff in the process of IO but is not crucial to determining the best method for IO planning. Most of these pieces do not gain any great advantage by using one method or the other. One element that is affected is operations.

In selecting a method for IO planning, the ECC provides the commander an advantage in preparing and conducting simultaneous or sequential operations. As units conduct operations, the ECC better facilitates the unit's ability to plan future. The ECC

contains representatives from many areas and is fighting the current fight and developing the plan for the future. As the current fight progress and rapid changes occur, the planners are able to make adjustments as required.

Discussion

An examination of the information available and the comparisons made with FM 3-0 supports that each method can work. The issue is which way is the better way to organize and operate. The separate methods may not work in high operational tempo environments because of several factors. One of these is the fatigue of the personnel on the unit staff. The separate IOWG and Fires Cell can lead to increased meetings for personnel, greater coordination and therefore less time for other required tasks. For operations in a fast paced environment, the ECC streamlines operations and provides faster response to needs of the commander and staff.

Regardless of the method selected, the measures of effectiveness (MOE) for IO are typically difficult to measure. The benefit to the ECC for MOE is the centralization of information. The information received in the ECC is not restricted to a specific area such as IO or lethal fires. The staff receives information for the ECC from a variety of sources. With the separate methods for IO, Soldiers may filter the information provided to the group or cell. The Soldiers may filter this information because they deem the material unnecessary for other cells or groups. This filtered information may create situations where the incomplete picture is developed. This incomplete picture may not adequately answer MOE questions. The ECC can reduce this stovepipe system of information flow.

As the unit transitions to combat, maintaining a focus on IO becomes a challenge. With the many tasks to accomplish during combat operations, the emphasis is often on

the direct firefight. The concept of IO and the long duration of the IO plan create a situation in which the unit may neglect IO. Under the ECC concept, the staff integrates IO into the plans and monitors IO on a daily basis.

The separate methods provide for detailed planning, preparation and transition. At the same time, the separate methods keep the subject matter experts engaged in their area. For the high op-tempo, typical kinetic type of warfare/operations, the ECC provides a cell that can synchronize assets in a timely manner. To add to the strain of conducting their specific purposes, each of these methods must conduct operations according to the brigade or division battle rhythm

The previous chapters identified the need for planning IO. The Army and the DOD is committed to IO. A review of the current literature available identified numerous examples of IO planning and execution in a variety of environments and the challenges Soldiers faced. With the preceding information in mind, it is time to answer the primary question and the subquestions of this thesis.

Question 1

The first question is what are marked benefits to the ECC methodology as opposed to the separate IOWG and Fires Cell? There are five significant advantages to using the ECC. Those five advantages are time, centralized coordination, reduced meeting requirements, synchronization, and one area to meet the commander's intent. The first advantage, time, is critical because a staff cannot allocate more time to accomplish planning, preparation and execution. Time is a critical resource for all units. For the commander, slow coordination and information flow can reduce his ability to make correct decision in a timely manner. A caveat is the unit must remain disciplined in

conducting the meetings. Failure to remain disciplined in the conduct of the meeting, maintaining the focus of the meeting and not conducting the meeting within the established time will negate the benefits of consolidation of the meetings.

The second advantage to the ECC is centralized coordination. The ECC provides oversight of all effects. The ECC is not restricted to tracking lethal or nonlethal fires and ensures the activities of all fires and effects achieve results that do not conflict with each other. The ECC is equipped to track the operations of the Army units and friendly aviation to ensure the operations are achieving the commander's intent for IO and the overall mission.

The ECC also consolidates the meeting requirements for key staff members. With fewer meetings to attend, the staff has more time to devote to their duties and not caught in a cycle of prepare, attend, disseminate and prepare for the next meeting. The reduced meeting requirements for the staff allow them more time to focus on their duties of planning, tracking and executing.

Synchronization of all available assets is the fourth advantage to use of the ECC. The ECC has the ability to track assets and reduce overlap or redundant coverage. Conversely, it also allows the staff to identify gaps in coverage and adjust assets to meet the requirements. This ability to synchronize assets is critical as the organization increases in size and the number of joint or coalition partners are involved.

The fifth major advantage the ECC provides units is one area to implement the commander's guidance. This one centralized location for IO, fires and effects reduces the chance for misinterpretation of commander's guidance or intent. Throughout Army manuals, the reader will see reference to the commander's intent. The inclusion of IO

with the ECC provides a better way to focus all efforts to achieving the commander's intent.

There are other advantages to using the ECC method. One such advantage is moving the staff toward EBO. Another advantage is the assets that can be controlled or quickly tasked through the ECC. The ECC has links to maneuver units using fire support elements, unmanned aerial vehicles, communications equipment, and other electronics that Soldiers can use to facilitate IO planning and execution. Lastly, the ECC is a perfect area to conduct targeting using the decide, detect, deliver, and assess methodology (D3A). The ECC has numerous experts that can make educated decisions on all targeting, not just lethal or nonlethal fires.

A look at this question using the areas from FM 3-0 indicates the ECC is a better method. With the ECC, the unit better achieves the principles of war of objective, unity of command and mass. Within the Army tenets of depth, synchronization and initiative, the ECC provides commanders and subordinates a more effective method of conducting operations compared to separate methods. Evaluating the methods against the elements of combat power and battlefield organization also shows the ECC to be a superior way to organize the staff. Finally, the use of the ECC better enhances the commander's ability to conduct battle command because of the centralized operations.

A second part to this question is if a unit approaches the IO challenge with an ECC, should this become an Army wide process. The answer to this is yes. As the Army transforms to the BCT and UEx concept the expectation is all units will be similar in structure and capabilities. With this in mind, the ECC should become an army wide

process to facilitate the interchangeability of units from different installations. There are many challenges to making this an Army wide process.

As the Army transforms it must be the same at BCT level because of the need for standardization, use of SOPs, and integrating into UEx commands. An infantry BCT must be able to work alongside a mechanized BCT or SBCT. For example, an operation could result in a light BCT from Ft. Drum and a Mechanized BCT from Ft. Hood assigned to a UEx from Ft. Stewart. Without a standard, Army wide process for IO staff organization, units will encounter operational challenges. These will be challenges units usually address in SOPs.

A reluctance to change will also make this a challenge for implementing as an Army wide process. If units are accustomed to operating as an IOWG and Fires Cell, and operated in this manner for a combat operation, there will be a natural hesitation to change. The ability to overcome this reluctance may require the assistance of outside agencies to train the unit staff on conducting operations effectively using the ECC.

Another concern is the inability to change due to current force structure. The ability to accomplish the change to the ECC with the current structure is possible. The same is true for the BCT/UEx force. The Army is allocating the staff positions in the force for the needed positions to effectively man the ECC. In the future, assuming all units are filled to required levels with the correct skill sets; units should not have Soldiers performing double duty with IO and their primary position.

If the Army does dictate the ECC organization to units, it may prevent commanders from organizing in a manner they are comfortable. Units can minimize this impact if the duty positions are properly manned and have the proper equipment. If a unit

commander does not believe he has the right amount of resources to organize properly according to the ECC method, the staff may revert to a separate system.

Question 2

The second question is for units that have taken the approach to have IOWG, what is gained? The IOWG allows the IO staff to conduct more detailed IO planning away from the lethal fires assets. The IOWG allows the staff to maintain the emphasis of the work to only IO and prevent the lethal effects of maneuver, artillery, and aviation overshadowing IO. Another benefit of the IOWG is bringing greater attention to the requirements of IO. As the sole focus the IOWG, the planners and executers can put all their efforts toward their IO efforts and not be distracted by discussions of lethal targeting, logistics, ATO cycle, command and control issues, and other unrelated activities that may occur in targeting meetings or the Fires Cell.

A second part to this question is does this group outweigh its inconvenience as another meeting in a time-constrained environment? The answer is no. The commander and staff can allocate many resources, but time is a limited resource that once lost, they cannot recover. In answering this second part of the question, the first assumption to make is time is limited and the staff will never have all of the time it wants or needs. By assuming these groups conduct operations in time-constrained environment such as a movement to contact, hasty defense, counter-attack, or other fast paced operation, the IOWG is inconvenient and unnecessary. A look at a sample battle rhythm shows the number of meetings a unit schedules for each 24 hour period. The Soldiers on the unit staff will not have the time to conduct battle tracking and planning for IO during high-intensity operations.

As the day progresses and the multiple demands pull at the staff, some of the same people will find themselves attending the IOWG and Fires Cell meeting. For a brief time, this may not be detrimental, but over days or weeks, this has the potential to divert the staff officer from an activity that could be more beneficial. The attendance of one person to multiple meetings hampers their ability to transmit information to lower echelons and report to higher headquarters. Within the staff, this attendance at multiple meetings will limit the individual's ability to gather and disseminate information within the operations center.

An examination of the staffing at the BCT/UEx command post reveals how many people are available from each section to attend a meeting and continue to operate their respective section. This staffing is to allow the section to conduct tactical operations, conduct maintenance, personal hygiene, rest, and other activities associated with combat operations. If the staff does not monitor the battle rhythm and allows multiple meetings throughout a day to occur, the Soldiers will be unable to tend to all required duties.

A look at this question using the areas from FM 3-0 also leads one to answer no; this meeting of the IOWG does not outweigh its inconvenience. The IOWG can offer the commander more detailed IO planning in a stable, low threat environment. Once a unit moves to faster operations, the advantage is lost. Throughout FM 3-0, there are areas that point to the need to maintain a focus on the mission and commander's intent and the ECC is the better method to achieve this focus. The separate meeting allows for ideas and plans to diverge from the overall concept and drift from the principles of objective and mass. The same is true for the tenet of synchronization. The IOWG is not the best method for ensuring the staff synchronizes all efforts of the unit. The last argument this meeting

does not outweigh its inconvenience is because of the concept of battle command. The ECC is capable of providing the commander a means to conduct effective battle command for his organization.

Question 3

A third question generated by the current structure involves the Fires Cell. That question is what are the persuasive arguments in favor of a separate Fires Cell and how can they be mitigated? The Fires Cell gives the commander a section with an emphasis on lethality. For high-intensity conflicts, the use of lethal effects is required to defeat large formations of organized troops. It is critical that a unit be capable of providing timely lethal fires to support units in contact and provide shaping fires for decisive operations. By use of a Fires Cell, the commander is able to provide this required emphasis that focuses the efforts of surface fires with attack aviation and fixed wing aircraft.

The benefit of using the Fires Cell to integrate Army attack aviation and joint aviation into the maneuver plan limits the focus of all present to the lethal fight and exclude events that do not have a direct, immediate impact on enemy formations. The training of the Fires Cell is to incorporate lethal fire support assets into the maneuver plan and focus on direct-fire fight. By separating the IOWG, it allows all efforts within the Fires Cell to concentrate on the direct-fire fight provide lethal shaping fires to support units in contact.

The use of the ECC can be just as effective as the Fires Cell during high-intensity operations. The organization of the ECC allows it to achieve effects across the full spectrum of operations. The design and staffing of the ECC is such that it has the

personnel to plan, prepare and execute missions involving lethal fires in a high-intensity conflict. With the modular force, the positions allocated for the BCT/UEx staff should allow a unit to conduct lethal fires within the ECC. The unit will have the assets to develop products, conduct targeting and assess the results without the need for a separate Fires Cell. For the argument that IO considerations could interfere with lethal fight, the staff can overcome this by limiting IO discussion during these high op-tempo events. A way to limit this IO discussion would be to prepare the IO plan before mission execution. Once prepared, there should be few IO requirements for ECC to monitor during a battle.

Miscellaneous

The analysis of IO and the method to conduct it has many variables. Within this chapter, ideas and concepts were selected to find an answer to what is the best method for IO? FM 3-0 provided ideas that form the cornerstone of Army doctrine to assist in the evaluation of the methods.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

The Army has made significant strides in IO since Kosovo. With the advancement of IO emphasis, there became a need to determine the best way to integrate IO into brigade and division operations. A review of the literature available shows that units plan and conduct IO differently throughout the Army. As the Army transforms, the need for standardization throughout units will become more important. In conducting this study, the author made the decision to use unclassified sources in an effort to encourage discussion in the widest forum possible.

Conclusions

IO will continue to develop as the Army incorporates IO into operations in Iraq and Afghanistan. The current Army doctrine does not provide the level of detail the force requires for integrating IO into all aspects of Army operations. As the Army is transforming to brigade based operations, units will require more IO specialist positions. The previous organization led to ad hoc organizations with Soldiers performing the IO planning functions as an additional duty. The fire support section does an excellent job of integrating desired effects and often becomes the IO coordinators. The need to develop a method for IO planning affects all the Army units. The expectation is for BCTs to be interchangeable across the Army. The typical kinetic fight provides near instant results. The IO plan does not always provide the quick results to determine if the unit is achieving the desired effects. Determining MOE will continue to be a challenge for IO planners and the Soldiers executing the IO plan. Kosovo and Operation Desert Storm provided the Army with a starting point for IO. The type of IO operations the Army is

developing is different from what the Navy and Air Force are implementing. The Army is the “boots on the ground” force that must provide the message to the citizens in the country they are operating. The Army is becoming better at training Soldiers in IO but this training is limited.

There are many sources for literature on IO. The sources range from official government sources to unofficial articles written by individuals associated with IO. A deficiency in this available literature is the discussion of the conduct of IO planning. The available field manuals provide a basic reference for the reader on IO. Soldiers are relying on word of mouth, trial and error, published lessons learned from Center for Army Lessons Learned and the Internet to determine how to organize with the command post. The available manuals do recognize the need for synchronizing IO tasks with the maneuver plan.

The ability to study IO is challenging. People can consider IO an art, and therefore does not lend itself to easy study. As the Army progresses with IO, there will be additional requirements to study the feasibility of implementing IO doctrine. The ability to study IO planning and execution requires detailed evaluation plans and deployable units. The planning and evaluation of the IO doctrine will most likely require a considerable amount of time and the resources of units that conduct IO as part of full spectrum operations.

From the previous chapters, there is evidence that IO is important to military operations and will continue to have a significant impact in the future. The ECC offers significant advantages to the unit commander and his staff compared to a method using separate IOWG and a Fires Cell. As units decide what method to use, the ECC gives

commanders advantages in almost all areas. The savings in time the ECC offers the staff is significant. The separate methods for IO require the staff to coordinate in meetings and working groups while the ECC allows the IO planning to take place in the cell. During high intensity operations, the staff does not have the time to conduct or attend multiple meetings during a 24 hour period. In the area of EBO, The ECC facilitates the unit synchronizing all effects with the IO plan. The ECC can produce the ETO and ensure synchronization with the lethal fires synchronization matrix. As the staff tracks the progress of the operation and the MOE, the ECC centralizes the data received. The ECC can track the effects achieved, evaluate against the MOE and determine if the unit is meeting the commander's intent.

The advantage of the separate methods for IO and staff organization is the greater emphasis on one area. The IOWG gives the commander the ability to focus the efforts of a group of people on the specific task of IO without interfering with lethal effects operations conducted by the fires cell. This separate method can work better in low intensity, stability operations and support operations when the focus shifts from lethal to targeting human behavior. According to FM 3-07 "In stability operations, IO may be the most critical and acceptable means of achieving stated objectives consistent with the ROE" (FM 3-07 2003, 2-19). Another advantage to the separate methods for staff organization is the focus on IO documents. The separate IOWG will facilitate the production of detailed IO specific products for dissemination to subordinate commanders.

When evaluating the ECC with FM 3-0, the ECC offers many advantages over the separate methods for IO. In the principles of war, the ECC ensures there is unity of command and a clearly defined objective for the operation. These two principals of war

are the most important for IO because of the need to ensure the unit focuses all operations and activities on achieving the commander's intent. Because the ECC is a centralized section for IO and fires, the ECC ensures the unit achieves the principle of mass and reduces the possibility of unnecessary duplication of effort on the same target. Within the tenets of Army operations, the ECC provides the staff the best method to synchronize operations and promotes initiative of subordinates.

Another area of FM 3-0 used for evaluation is elements of combat power. The ECC gives the commander the best option for combining the five elements of combat power. The same is true for battlefield organization and battle command. The ECC supports the commander's ability to array his forces for decisive, shaping and sustaining operations for IO. The ECC gives the commander a better way to gather information as exercises battle command through visualization and directing the staff and subordinates.

The last three areas in FM 3-0 used for evaluation were the BOS, full spectrum operations, and elements of operational design. These three areas benefit from the use of the ECC over the other method. With the ECC, the commander can support a wide range of operations by having the IO planning centralized in a centralized cell.

In reaching these conclusions, some assumptions were made in this thesis. One of the assumptions is the products produced by both methods are identical or equal. Within this study, it was not possible to determine if either method provides different results. A second assumption is the Army must conduct IO because it is required. Because of this assumption, a need to determine the best method for IO planning is required. A third assumption is the commander and staff are competent in IO planning and execution. This

assumption is the commander and staffs are trained in their duties, and there would not be untrained personnel conducting staff planning and execution.

Recommendations

As this study of IO progressed, many other questions arose. These questions require more study that is detailed and has significant implications for IO and the Army. Below are some suggested areas for further study.

1. Is there an enlisted or warrant officer functional area / military occupations skill (MOS) requirement for IO? As the emphasis for IO increases, there may not be enough commissioned officers to fill all the required positions in UEx and BCT command post. The enlisted and warrant officer perspective for IO can provide a valuable new approach to conducting operations and meeting IO challenges.

2. As the field of IO specialist evolves to become a more mature field, where should the experts work? The IO functional area is growing within the Army and expanding their presence within combat units and headquarters staff. The IO functional area is relatively new and was first implemented in the 1990's. This relatively new functional area and Army transformation will create a resource issue. As the functional area grows, should the IO experts be spread throughout the Training and Doctrine Command installations or working in the units? As the requirements expand for IO experts, will there be enough to meet the Army needs? Another question is there a risk in having the IO proponent for brigade and below at one installation and the proponent for division and above at another installation?

3. What role should advanced civil schooling play in the development of IO officer? Is there a plan for graduate study for the IO officer? As units conduct stability

and support operations, many of the challenges faced by Soldiers relate to local government. The unit commanders face challenges that we associate with the responsibilities of a mayor, city council, school board, county commissioner and numerous other positions. These are positions are often elected in the United States.

4. Does the Army need to create a skill identifier for enlisted Soldiers and develop a training program to facilitate IO throughout the division? This is similar to the first question but provides a means to train and assist in the lower echelons of the division. The capability of the Army being able to resource multiple IO MOS trained solders is unlikely. A solution may be to create a skill identifier for Soldiers to earn through a Department of the Army certified training program.

5. Better defining IO. Discussions about IO with professional Soldiers always generate different responses when asked what is IO. If units are to integrate the concept of IO into BCTs and military operations, all Soldiers should have the same understanding of IO and the associated term.

6. What does the Army really expect from IO and FA 30 experts? This question is similar to number five above. In Talbot's article, he states commanders did not have the information they needed for a battle in Baghdad. As the units approached a major enemy formation, the units did not know the battle would involve a significant enemy force (Talbot 2004, 37). The idea of IO varies among levels of command and within the services. The concept of IO at the strategic, operational, and tactical level needs further study and definition. What are IO at the operational and tactical level? Does IO mean knowing more about your enemy during high-intensity combat operations? During

reconstruction and stabilization, are IO getting your message out and influencing the population to do what you want?

7. What are the current initiatives of Army training centers to integrate IO into military operations? The MTPs and the training centers were areas not studied. With the long duration of some IO plans to achieve the desired effects, do evaluations and training center rotations provide enough time to evaluate the unit?

8. Why is there a G7 at division and above? If there will continue to be a G7, should there also be a S7 at brigade and battalion that is the IO coordination center? Why are operations being planned and conducted in a separate section? Should units conduct all operations under the G3 section?

As the Army and IO evolve, the issues of how to organize the staff will evolve. The doctrine for the modular force will require change as units field equipment, conduct training, and perform contingency operations. As a result, the change will take time and go through a process of trial and error for units to get it correct. It is important for the military to get IO correct as the transformation process evolves and fields the FCS while increasing the reliance on knowledge to defeat the enemy.

In summary, the ECC provides an advantage to the commander and staff at the division and brigade levels. FM 3-0, *Operations*, provides a foundation for evaluating IO planning and execution at these two levels. As the foundation for Army operations and doctrine, FM 3-0 details many of the actions that a commander must perform in order to be successful. Two of the most important pieces of FM 3-0 are the discussions of the principles of war and the tenets of Army operations. These pieces have numerous elements that a commander and his staff must consider in conducting Army operations.

Using these and other parts of FM 3-0 to compare the methods for planning, preparation, and execution of IO, the Effects Coordination Cell is the best method for an Army brigade or division staff.

ILLUSTRATIONS

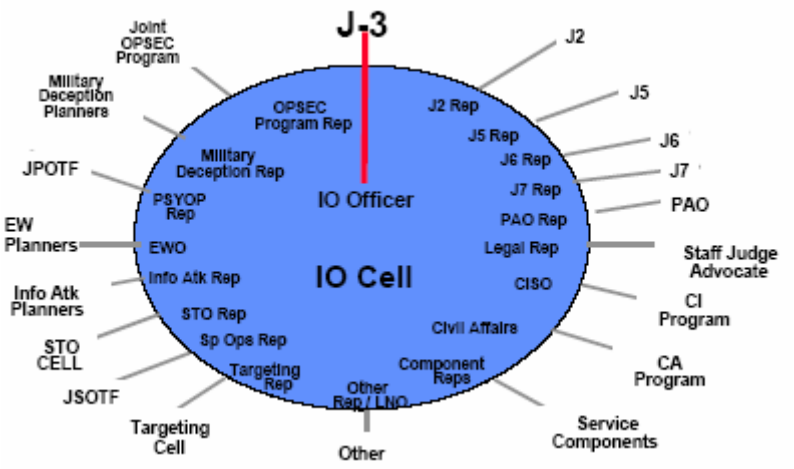

Figure 1. IO Cell
Source: Information Warfare Division, Joint IO Handbook, Norfolk, VA, 2003, B1.

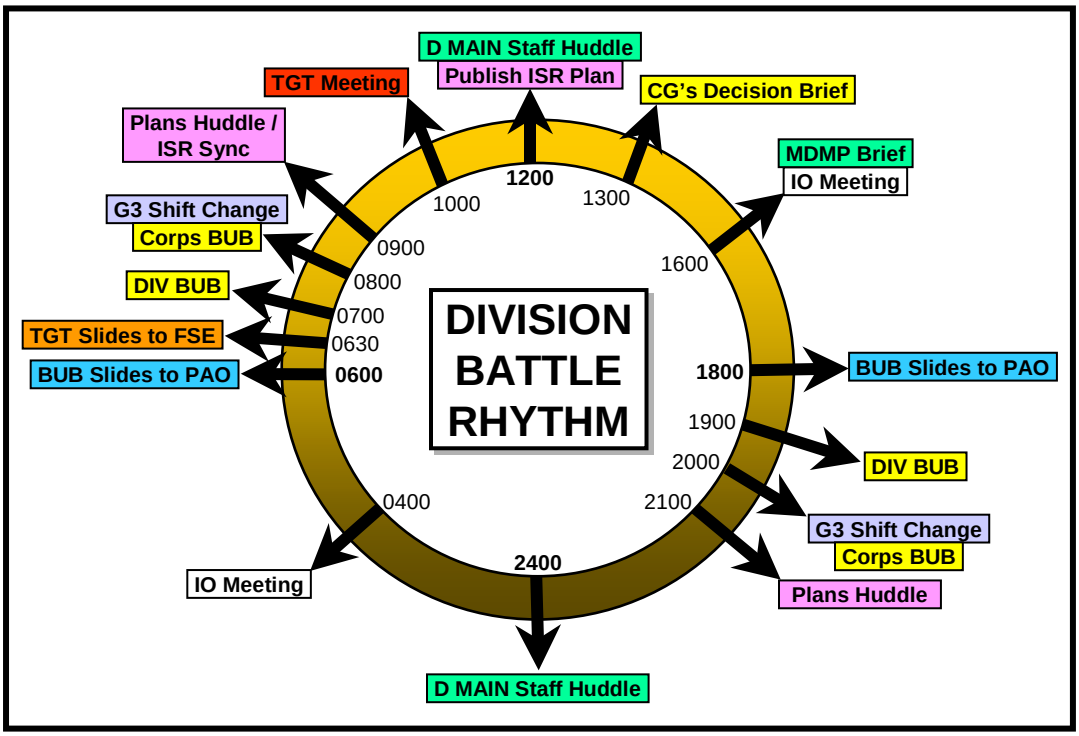

Figure 2. Division Battle Rhythm
Source: Headquarters, Department of the Army, FM 3-60 (Washington, DC: DA, 2003), 4-32.

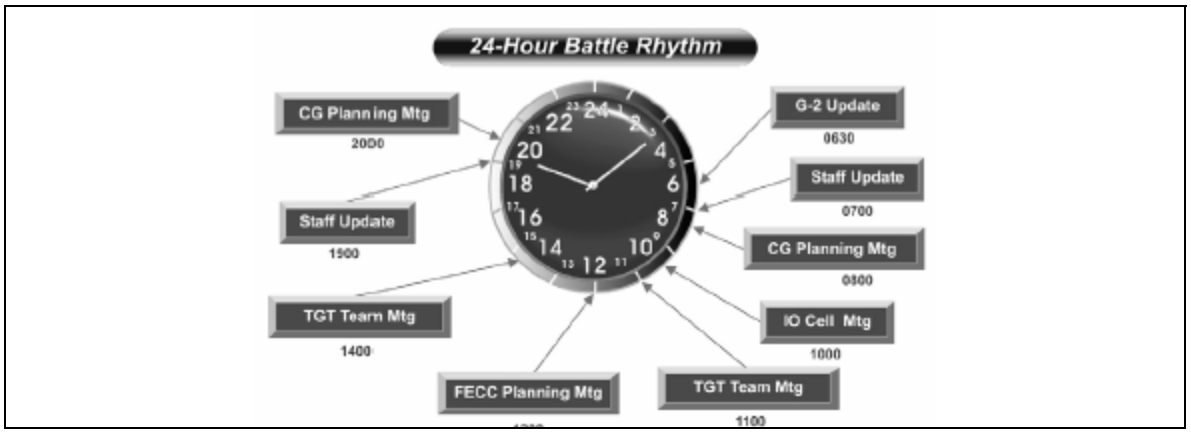

Figure 3. 24 Hour Battle Rhythm

Source: Headquarters, Department of the Army, FM 3-13 (Washington, DC: DA, 2003), E-5.

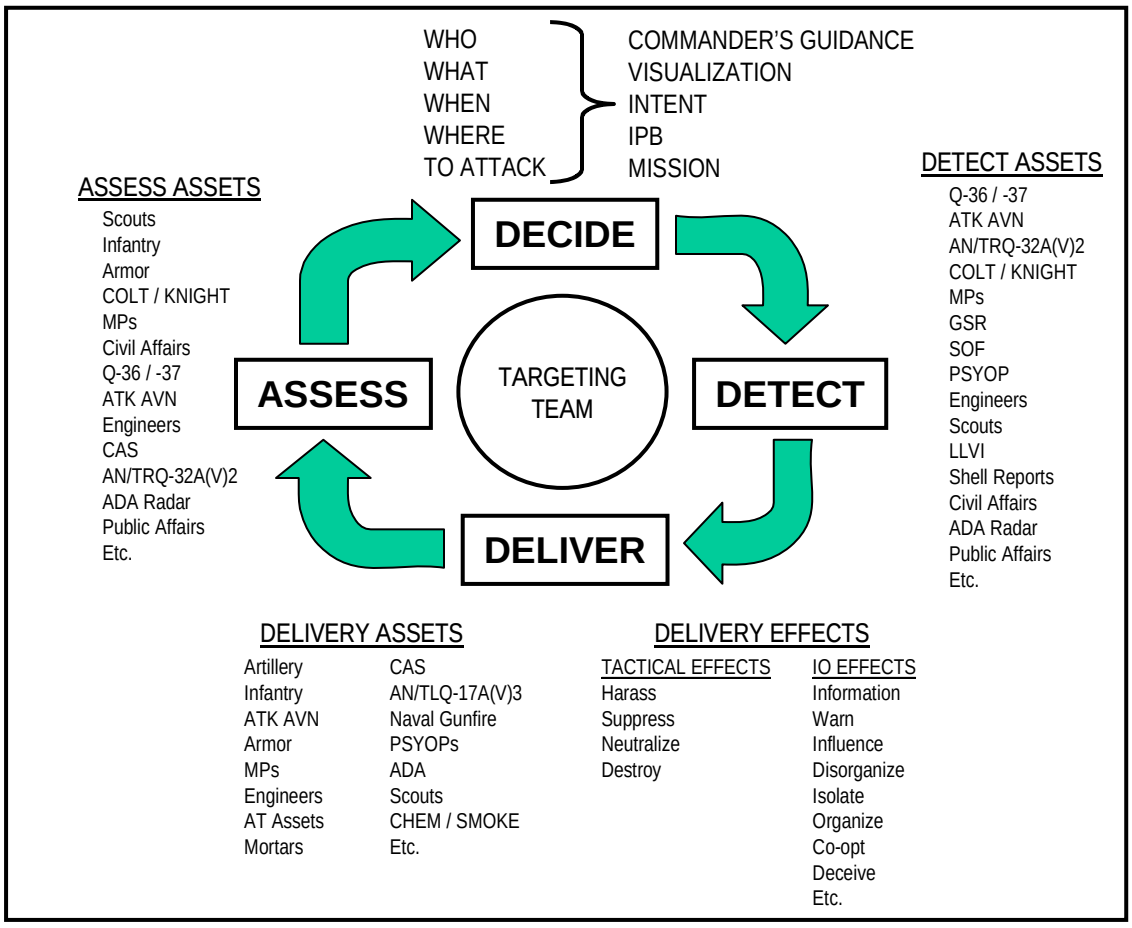

Figure 4. Targeting Methodology D3A

Source: Headquarters, Department of the Army, FM 3-60 (Washington, DC: DA, 2003), 2-24.

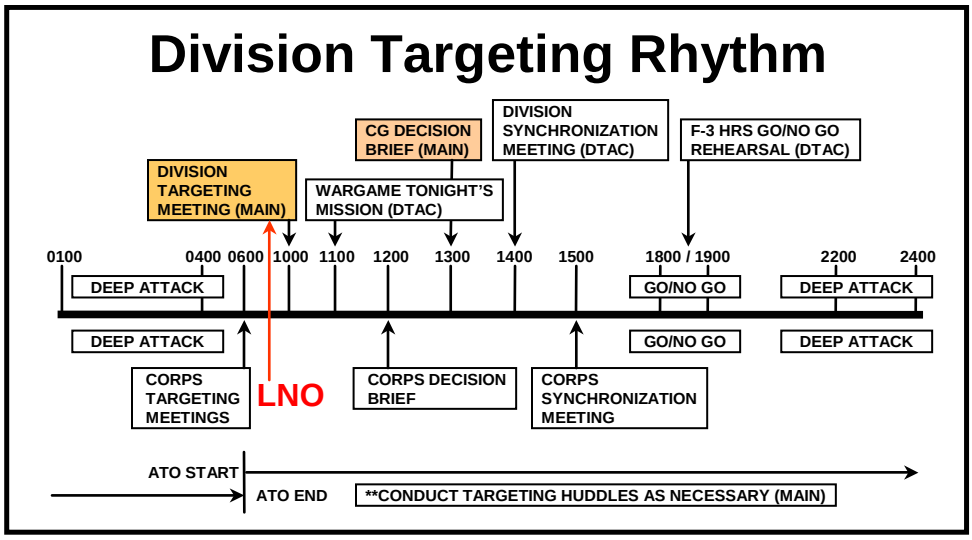

Figure 5. Division Targeting Rhythm

Source: Headquarters, Department of the Army, FM 3-60 60 (Washington, DC: DA, 2003), 4-33.

GLOSSARY

Effects Based Operations (EBO) - A process for obtaining a desired strategic outcome or "effect" on the enemy, through the synergistic, multiplicative, and cumulative application of the full range of military and nonmilitary capabilities at the tactical, operational, and strategic levels. (United States Joint Forces Command 2005)

Effects Coordination Cell - brings all the agencies involved in deep operations together in one location to facilitate the exchange of information and coordination. (Sweeny 2003, 40)

Fires Cell - The fire support cell synchronizes all deep fires and directs the attack of targets by organic or attached fire support. This includes synchronizing fires for J-SEAD to support air and aviation operations. It coordinates the use of airspace through the A^2C^2 element. It coordinates Air Force support through the ASOC and corps or division TACP. The fire support cell coordinates support requests and taskings with the FS CELL in the DACC. In some special cases, the fire support cell coordinates directly with the BCD at the AOC. The cell includes representatives from the TACP, Army aviation, AD, IO, G3 air, G2, engineer, and A^2C^2 section. (FM 3-60 2003, 4-4)

Information Operations - The employment of the core capabilities of electronic warfare, computer network operations, psychological operations, military deception, and operations security, in concert with specified supporting and related capabilities, to affect or defend information and information systems, and to influence decision making. This definition supersedes the definition of IO in FM 3-0. It is consistent with joint initiatives. (FM 3-13 2003, Glossary-12)

Information Operations Working Group - forum to coordinate…IO, including IO targeting tasks. (Gonzales 2001, 8)

Information Superiority – (Army) The operational advantage derived from the ability to collect, process, and disseminate an uninterrupted flow of information while exploiting or denying an adversary's ability to do the same. (FM 3-0) (FM 3-13 2003, Glossary-12)

Information Warfare – Information operations conducted during time of crisis or conflict to achieve or promote specific objectives over a specific adversary or adversaries. Also called IW. (This term and its definition modifies the existing term and definition and will be included in Joint Pub 1-02.) (Chairman of the Joint Chiefs of Staff 1998, GL-8)

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